



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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*AS*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/439,320 11/12/99 MOSS

N DKT94074A(80

EXAMINER
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QM01/0329

PATENT DOCKET ADMINISTRATOR  
BORG WARNER AUTOMOTIVE INC  
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TROY MI 48007-5060

KWON, J

ART UNIT	PAPER NUMBER
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3747

DATE MAILED:

03/29/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/439,320

Applicant(s)

Moss et al

Examiner  
Kwon, John

Group Art Unit  
3747



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Housekeeping*

Applicant(s) is(are) suggested to list a current telephone number, a facsimile number and a list of the attachments, if any, under the signature of the attorney/applicant for each response to the Office action(s) in order to expedite and make accurate the prosecution of the application.

1. The submission of the Information Disclosure Statement dated November 12, 1999 has been received and fully considered. No further Information Disclosure Statement is in the records.

/ 2. Verify the status of claim 2.

### *Drawings*

3. The submission of the formal drawings is approved.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7, 9, 11-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Treiber (US 5,486,087). Treiber discloses an impeller located between two radially separable walls of a regenerative type fuel pump. The cross-sectional area at the inlet flow is greater than

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the cross-sectional area at the outlet area (Col. 2, lines 15-25, Col. 3, lines 35-37). The flow path is provided asymmetrically in the first/second side of the wall. The flow path is tapering axially inwardly toward the impeller from the fluid inlet to the fluid outlet as the fluid is directed back toward the impeller as the impeller rotates.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

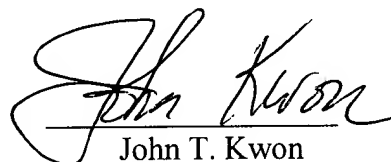
6. Claims 8, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treiber (US 5,486,087). Treiber discloses a decreasing cross-sectional area of the flow path from the fluid inlet to the fluid outlet in the regenerative type fuel pump as explained above, but does not show the specific reduction between the inlet area and the outlet area. It would have been considered to be an obvious choice of mechanical design because one skilled in this art is familiar with basic fluid mechanic and normally has the laboratory test facilities. To optimize or select the suitable flow path reduction between the inlet area and the outlet area would be within the ability of ordinary skilled in this art.

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***Contact Information***

Any inquiry concerning this communication should be directed to Examiner Kwon at telephone number (703) 308-1046 and facsimile numbers (703) 305-3588. The examiner can normally be reached on Monday thru Friday from 8:30 AM to 5:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, appearing to read "John Kwon", written over a horizontal line.

John T. Kwon  
Primary Examiner  
Art Unit 3747

March 27, 2000

Enclosure(s);

See the attachment(s) section of the Office Action Summary.